**FIG. 1**

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MLATVPSCPLDSRSPSWGSTWLCASGGSWGTAASSCMSSSAGRALRGTGDSRHTKMKTATN
IYIFNLALADTLVLLTLPFQGT DILLGFWPFGNALCKTVIAIDYYNMFTSTFTLTAMSVD
RYVAICHPIRALDVRTSSKAQAVNVAIWALASVVGVPVAIMGSAQVEDEEIECLVEIPAP
QDYWGPVFAICIFLFSFIIPVLIISVCYSLMIRRLRGVRLLSGSREKDRNLRRITRLVLV
VVAVFVGCWTPVQVFVLVQGLGVQPGSETAVAILRFCTALGYVNSCLNPILYAFLDENFK
ACERKFCCASALHREMQVSDRVRSIAKDVGLGCKTSETVPRPA

FIG. 2

MESLFPAPFWEVLYGSHFQGNLSLLNETVPHHLLLNASHSAFLPLGLKVTIVGLYLAVCI
GGLLGNCLVMYVILRQCPENPLRGVLRETEERRQHLSLLIPSTNSHSGTPR

FIG. 3

MESLFPAPFWEVLYGSHFQGNLSLLNETVPHHLLLNASHSAFLPLGLKVTIVGLYLAVCI
GGLLGNCLVMYVILRQHCAIGRSLMNFTGSALKTL

FIG. 4

MESLFPAPFWEVLYGSHFQGNLSLLNETVPHHLLLNASHSAFLPLGLKVTIVGL
YLAVCI GGLLGNCLVMYVILRHTKMKTATNIYIFNLALADTLVLLTLPFQGT D I
LLGFWPFGNALCKTVIAIDYYNMFTSTFTLTAMSVD RYVAICHPIRALDVRTSS
KAQAVNVAIWALASVVGVPVAIMGSAQVEDEGQWAVLLPDQSVPHGSCRPL

FIG. 5

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MLVTAPSCPLDSRSPSWGSTWLCASGGSWGTTASSEMSSSAGRALRGTGDSRHTKMKTATN
IYIFNLALADTLVLLTLPFQGTDILLGFWPFGNALCKTVIAIDYYNMFTSTFTLTAMSVD
RYVAICHPIRALDVRTSSKAQAVNVAIWALASVVGVPVAIMGSAQVEDEEIECLVEIPAP
QDYWGPVFAICIFLFSFIIPVLIISVCYSLMIRRLRGVRLLSGSREKDRNLRRITRLVLV
VVAVFVGCWTPVQVFVLVQGLGVQPGSETAVAILRFCTALGYVNSCLNPILYAFLDENFK
ACFRKFCCASSLHREMQVSDRVRSIAKDVGLGCKTSETVPRPA

FIG. 6

MPATAPSCPSGSRSPSWGSTWPCVSEGSWGTTALSCTSSSGRLGPKVPVWHTKMKTATNIY
IFNLALADTLVLLTLPFQGTDILLGFWPFGNALCKTVIAIDYYNMFTSTFTLTAMSVD
RYVAICHPIRALDVRTSSKAQAVNVAIWALASVVGVPVAIMGSAQVEDEEIECLVEIPTPD
QDYWGPVFAICIFLFSFIVPVLVISVCYSLMIRRLRGVRLLSGSREKDRNLRRITRLVLV
VVAVFVGCWTPVQVFVLAQGLGVQPSSETAVAILRFCTALGYVNSCLNPILYAFLDENFK
ACFRKFCCASALRRDVQVSDRVRSIAKDVALACKTSETVPRPA

FIG. 7

MEPLFPAPFWEVIYGSHLQGNLSLLSPNHSLLPPHLLLNASHGAFLPLGLKVTIVGLYL
AVCVGGLLGNCLVMHTKMKTATNIYIFNLALADTLVLLTLPFQGTDILLGFWPFGNALC
KTVIAIDYYNMFTSTFTLTAMSVD
RYVAICHPIRALDVRTSSKAQAVNVAIWALASVVG
VPVAIMGSAQVEDEEIECLVEIPTPD
QDYWGPVFAICIFLFSFIVPVLVISVCYSLMIRRL
RGVRLLSGSREKDRNLRRITRLVLV
VVAVFVGCWTPVQVFVLAQGLGVQPSSETAVAI
LRFCTALGYVNSCLNPILYAFLDENFK
ACFRKFCCASALRRDVQVSDRVRSIAKDVALA
CKTSETVPRPA

FIG. 8

```

1   ttggttcc ttctccaacc tgcgcagccc ctcttctctc cagccgcagc cttctgcccc
61  tcccccttct ggctgccgca ctggctgctg cgtctagtca atatcttata ttcggagcag
121 gagctaggag ccattcccag cggagcaga cccaagcta gagtgagaag cattactcag
181 ttcatgtgct tcctgcctgc ctttctgcta agcattaggg tctgttttgg ccagcttct
241 gaagagggtg tgtgtgctgt tggaggaact gtactgagtg gctttgcagg gtgacagcat
301 ggagtcctc tttcctgccc cattctggga ggtcttgtat ggcagccact ttcaagggaa
361 cctgtctctc ctaaatgaga ccgtaccca tcacctgctc tcaatgcta gccacagtgc
421 ctctctgccc ctggactca aggtcaccat cgtgggctc tacttggctg tgtcatcgg
481 ggggtcctg ggaactgcc tcgtcatgta tgtcatcctc agctgggagg gcattgagg
541 gaactggaga cagcaggcac accaagatga agactgctac caacatttac atatttaac
601 tggcactggc tgataccctg gtcttgctga cactgccctt ccagggcaca gacatcctc
661 tgggcttctg gccatttggg aatgcactgt gcaagacggt cattgctatc gactactaca
721 acatgtttac cagcacttct acttgactg ccatgagtg agaccgttat gtagctatct
781 gccaccctat ccgtgccctt gatgttcgga catccagtaa agcccaggcc gtaaatgtg
841 ccataatggc cctggcttcg gtggttggtg ttcctgttgc catcatgggc tcagcacaag
901 tggaggatga agagatcgag tgcctgggtg agatccccgc cctcaggac tattggggcc
961 ctgtatttgc catctgcac ttcctttttt ccttcatcat ccggttctg atcatctctg
1021 tctgctacag cctcatgatt cgacgacttc gtggtgtccg gctgcttca ggctcccgag
1081 agaaggaccg gaacctgcga cgcatcacac ggctggtact gtagtgttg gctgtgtttg
1141 tgggctgctg gacacctgtg caggtccttg tctggttca aggactgggt gttcagccag
1201 gtagtgagac tgcagtagcc attctgcgct tctgcacagc cctgggctat gtcaacagtt
1261 gtctcaatcc cattctctat gctttcttgg atgagaactt caaggcctgc tttagaaagt
1321 tctgtgtgct tctgcccctg caccgggaga tgcaggttct tgatcgtgtg cgcagcattg
1381 ccaaggatgt aggccttggt tgcaagacct ctgagacagt accacggccg gcatgactag
1441 gcgtggacct gcccatgggt cctgtcagtc ctagaggaag accttttagc accatgggac

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FIG. 9A

1501 aggtcaaaagc atcaagggtgg cctccatggc tctgtcagat taagtttccct ccctgggtata
1561 ggaccagaga gaaccaaagg aactgcatgg aaacatccac aactcagtg acatgcctgg
1621 tgaacccatg taggtattca tggttcactt gactcttctc tggtttctcc ctgctgccct
1681 ggttcttaggt gggctcagct gaggatattgt agttgtcatg tagtcaactat tgtgactacc
1741 tgttgtgtgc tattgccctc agccttcagt gttgcacag aactggtgat catacccagt
1801 gttgcctggc ccttaagctt ggagttgcct tggagcatct agttctgact ccactgatgc
1861 attcagatta cctgagggtgg gtgagcatca gtgggttctt ggatgactgt ttcctgacga
1921 ttcttttcat gctgtactat ggtgtatatg aaggggactt cacacttcat ctggtactgc
1981 cactgcctgc tctaccaacc tggaccacct tctcagcaag aggctagcag ggggacaaga
2041 cacaaagctt ccctaaggct ctttccctcc aaaaccactg tgaactctta ttctacagac
2101 tgtttggcaa gccctgctc taactgtgtg ggaagtaatc aggagaaaaat tctgtggcct
2161 ctgtaggctg ctcacagcat ggaggcacca catgctggtc ttgggtatgt gtcttggctg
2221 ctcagtatgg gcagggcagg gcacgagact atctctctcc ttattctcca cagcctccct
2281 cagctctcca gcagtcgctc ttttacttga cagtagaggt tagcagcagt tgtactcgta
2341 gaaacacact tgtagccccg gaagactgga gtcaggatgt gttctattct ataccacag
2401 tgaccacctg cttcatattat agggttagga catatccaag caaggcctgg gcttggcatc
2461 aatgaagag ctggtatgag agctgaagcc taaaatggct catttgagca atctgcaagg
2521 actattacgg ttttggggac attggaagaa gagtcgatac ctggagata tattgttgggt
2581 tcacagaaga agaggctttg taaatgccct ttctatgggt cagataaaaa aaaa

FIG. 9B

1 tggctttgca gggtagacagc atggagtccc tcttctcgc cccattctgg gagtcttgt
 61 atggcagcca ctttcaaggg aacctgtctc tcctaaatga gaccgtaccc catcacctgc
 121 tcctcaatgc tagccacagt gccttcctgc ccctggact caaggtcacc atcgtggggc
 181 tctacttggc tgtgtgcac gcggggctcc tggggaactg cctcgtcatg tatgtcatcc
 241 tcaggcagt ccctgaaaac cctctgagag gagtcttaag agagactgag gagagaagac
 301 gcattcttc tctcttgatt ccttccacaa attcacattc aggcacacca agatgaagac
 361 tgctaccaac attacatat ttaatctggc actggctgat accctgggtc tgctgacact
 421 gcccttccag ggcacagaca tccttctggg cttctggcca ttggggaatg cactgtgcaa
 481 gacggtcatt gctatcgact actacaacat gttaccagc acttcaactt tgaactgccat
 541 gagtgtagac cgttatgtag ctatctgcca ccctatccgt gcccttgatg ttcggacatc
 601 cagtaaagcc caggccgtta atgtggccat atgggccctg gcttcgggtg ttggtgttcc
 661 tgttgccatc atgggctcag cacaagtgga gtagtaagag atcgagtgcc tgggtggagat
 721 ccccgccctc caggactatt ggggccctgt atttgccatc tgcattctcc ttttttcctt
 781 catcatccc gttctgatca tctctgtctg ctacagcctc atgattcgac gacttcgtgg
 841 tgtccggctg ctttcaggct ccgagagaa ggaccggaac ctgcgacgca tcacacggct
 901 ggtactggta gttgtggctg tgtttgtggg ctgctggaca cctgtgcagg tctttgtcct
 961 ggttcaagga ctgggtgttc agccaggtag tgagactgca gtagccattc tgcgcttctg
 1021 cacagccctg ggctatgtca acagtgtct caatccatt ctctatgctt tcttggatga
 1081 gaacttcaag gcctgcttta gaaagtctg ctgtgcttct gccctgcacc gggagatgca
 1141 ggtttctgat cgtgtgcgca gcattgcca gtagttaggc cttgggttga agacctctga
 1201 gacagtacca cggccggcat gactaggcgt ggacctgccc atggtgcctg tcagtecc

FIG. 10

1 tggctttgca ggtgacagc atggagtccc tcttctcgc cccattctgg gaggtcttgt
 61 atggcagcca ctttcaaggg aacctgtctc tcttaaatga gaccgtaccc catcacctgc
 121 tctcaaatgc tagccacagt gccttctcgc ccttggact caaggtcacc atcgtggggc
 181 tctacttggc tgtgtgcac ggggggctcc tggggaactg cctcgtcatg tatgtcatcc
 241 tcagacaaca ttgtgcactt ggaagatctt tgatgaactt ta6aggcagt gcctgaaaa
 301 cctcttgaga ggagtcttaa gagagactga ggagagaaga cagcatctct ctctcttgat
 361 tcttccaca aattcacatt caggcacacc aagatgaaga ctgctacca cattaacata
 421 tttaatctgg cactggctga taccctggtc ttgctgacac tgccttcca ggccacagac
 481 atccttctgg gcttctggcc atttgggaat gcactgtgca agacggtcac tgctatcgac
 541 gctatctgcc accctatccg tgccttgcac gttcggacac ccagtaaagc ccaggccgtt
 601 aatgtggcca tatgggccct ggcttcggtg gtggtgttc ctgttgcac catgggctca
 661 gcacaagtgg aggatgaaga gatcgagtgc ctggtggaga tccccgcccc tcaggactat
 721 tggggccctg tatttgccat ctgcactctc ctttttctc tcatcatccc ggttctgac
 781 atctctgtct gctacagcct catgattcga cgacttcgtg gtgtccggct gcttccaggc
 841 tcccgagaga aggaccggaa cctgcgacgc atcacacggc tggactgggt agttgtggct
 901 gtgtttgtgg gctgctggac acctgtgcag gtctttgtcc tggttcaaagg actgggtggt
 961 cagccaggta gtgagactgc agtagccatt ctgcgcttct gcacagccct gggctatgtc
 1021 aacagtgtc tcaatcccat tctctatgct ttcttggatg agaacttcaa ggcctgcttt
 1081 agaaagtctt gctgtgcttc tgcctcgac cgggagatgc aggttctga tcgtgtgcgc
 1141 agcattgcca aggatgtagg ccttggttgc aagacctctg agacagtacc acggccggca
 1201 tgactaggcg tggacctgcc catggtgect gtcagtccac agagcccatc tacacccaac
 1261 acggagctca cacaggtcac tgctctctag gttgacctg aactgagcgt ctggggcctt
 1321 gaatggcctt tcttttggtt caggatgctc agtccctagag gaagaccttt tagcaccatg
 1381 ggacaggta aagcatcaag gtggcctcca tggctctgac agattaagtt tcctccctgg
 1441 tataggacca gagagaacca aaggaaactgc atggaaacat ccacaactca gtggacatgc

FIG. 11A

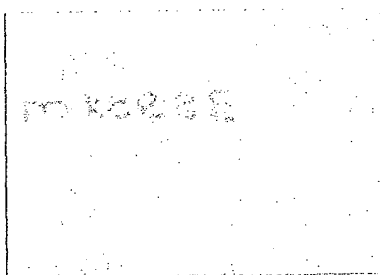
1501 ctggtgaacc catgtaggta ttcatgggtc acttgactct tctctgggtt ctcctgctg
1561 ccctggttct aggtgggctc agctgaggta ttgtagttgt catgtagtca ctattgtgac
1621 tacctgttgt gtgctattgc cctcagcctt cagtgtttgc acagaactgg tgatcatacc
1681 cagtgttgc tgcccttaa gcttgagtt gccttgagc atctagtct gactccactg
1741 atgcattcag attacctgag gtgggtgagc atcagtggtt tcttgatga ctgtttcctg
1801 acgattctt tcatgctgta ctatggtgta tatgaagggg acttcacact tcatctggtg
1861 ctgccactgc ctgctctacc aacctggacc acctctcag caagaggcta gcagggggac
1921 aagacacaaa gcttccctaa ggctctttcc ctccaaaacc actgtgaact cttattctac
1981 agactgttg gcaagccctg cttctaactg tgtgggaagt aatcaggaga aaattctgtg
2041 gcctctgtag gctgctcaca gcattggaggc accacatgct ggtcttgggt atgtgtcttg
2101 gctgctcagt atgggcaggg cagggcacga gactatctct ctccttattc tccacagcct
2161 ccctcagctc tccagcagtc gctcttttac ttgacagtag aggttagcag cagttgtact
2221 cgtagaaaca cacttgtagc ccgggaagac tggagtcagg atgtgttcta ttctataccc
2281 acagtgacca cctgcttcat ttatagggtt aggacatata caagcaaggc ctgggcttgg
2341 catcaaatga agagctggta tgagagctga agcctaaaaat ggctcatttg agcaatctgc
2401 aggactatt acggttttgg ggacattgga agaagagtcg atacccttgg gatataattgt
2461 tggttcacag aagaagaggc ttgtgaaatg ccctttctat gggtcagata aaaaaaaa

FIG. 11B

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GTACTGAGTGGCTTTGACAGGGTGACAGCATGGAGTCCCTCTTTCCTGCTCCATACTGGGA
GGTCTTGTATGGCAGCCACTTTCAAGGGAACCTGTCCCTCCTAAATGAGACCGTACCCCA
CCACCTGCTCCTCAATGCTAGTCACAGCGCCTTCCTGCCCTTGGACTCAAGGTCACCAT
CGTGGGGCTCTACTTGGCTGTGTGCATCGGGGGGCTCCTGGGGAAGTGCCTCGTCATGTA
TGTCATCCTCAGCTGGGAGGGCATTGAGGGGGACTGGAGACAGCAGGCACACCAAGATGA
AGACAGCTACCAACATTTACATATTTAATCTGGCACTGGCTGATACCCTGGTCTTGCTAA
CACTGCCCTTCCAGGGCACAGACATCCTACTGGGCTTCTGGCCATTTGGGAATGCACTCT
GCAAGACTGTCATTGCTATCGACTACTACAACATGTTTACCAGCACTTTTACTCTGACCG
CCATGAGCGTAGACCGCTATGTGGCTATCTGCCACCCTATCCGTGCCCTTGATGTTGGGA
CATCCAGCAAAGCCCAGGCTGTTAATGTGGCCATATGGGCCCTGGCTTCAGTGGTTGGTG
TTCCTGTTGCCATCATGGGTTCAGCACAAGTGGAAGATGAAGAGATCGAGTGCCTGGTGG
AGATCCCTGCCCCCTCAGGACTATTGGGGCCCTGTATTGCCATCTGCATCTTCCTTTTTT
CCTTCATCATCCCTGTGCTGATCATCTCTGTCTGCTACAGCCTCATGATTGACGACTTC
GTGGTGTCCGTCTGCTTTCAGGCTCCCGGGAGAAGGACCGAAACCTGCGGCGTATCACTC
GACTGGTGTGGTAGTGGTGGCTGTGTTTGTGGGCTGCTGGACGCCTGTGCAGGTGTTTG
TCCTGGTTCAAGGACTGGGTGTTCAGCCAGGTAGTGAGACTGCAGTTGCCATCCTGCGCT
TCTGCACAGCCCTGGGCTATGTCAACAGTTGTCTCAATCCATTCTCTATGCTTTCCTGG
ATGAGAAGTTCAAGGCCTGCTTTAGAAAGTTCTGCTGTGCTTCATCCCTGCACCGGGAGA
TGCAGGTTTCTGATCGTGTGCGGAGCATTGCCAAGGATGTTGGCCTTGGTTGCAAGACTT
CTGAGACAGTACCACGGCCAGCATGACTAGGCGTGGACCTGCCCATGGTGCCTGTCAGCC
CTGAACCTTGAGCATCTGGAGCC

FIG. 12



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GTACTGAGTGGCTTTGCAGGGTGACAGCATGGAGTCCCTCTTTCCCTGCTCCATACTGGGAGGTCT
TGTATGGCAGCCACTTTCAAGGGAACCTGTCCCTCCTAAATGAGACCGTACCCACACCTGCTC
CTCAATGCTAGTCACAGCGCCTTCCTGCCCTTGGACTCAAGGTCACCATCGTGGGGCTCTACTT
GGCTGTGTGCATCGGGGGGCTCCTGGGGAACCTGCCTCGTCATGTATGTCATCCTCAGCTGGGAGG
GCATTGAGGGGGACTGGAGACAGCAGGCACACCAAGATGAAGACAGCTACCAACATTTACATATT
TAATCTGGCACTGGCTGATACCCTGGTCTTGCTAACACTGCCCTTCCAGGGCACAGACATCCTAC
TGGGCTTCTGGCCATTTGGGAATGCACTCTGCAAGACTGTCATTGCTATCGACTACTACAACATG
TTTACCAGCACTTTTACTCTGACCGCCATGAGCGTAGACCGCTATGTGGCTATCTGCCACCCTAT
CCGTGCCCTTGATGTTGCGACATCCAGCAAAGCCCAGGCTGTTAATGTGGCCATATGGGCCCTGG
CTTCAGTGGTTGGTGTTCCTGTTGCCATCATGGGTTTCAGCACAAAGTGGAAAGATGAAGAGATCGAG
TGCCTGGTGGAGATCCCTGCCCTCAGGACTATTGGGGCCCTGTATTCGCCATCTGCATCTTCCT
TTTTTCCTTCATCATCCCTGTGCTGATCATCTCTGTCTGCTACAGCCTCATGATTCGACGACTTC
GTGGTGTCCGTCTGCTTTCAGGCTCCCGGGAGAAGGACCGAAACCTGCGGCGTATCACTCGACTG
GTGCTGGTAGTGGTGGCTGTGTTTGTGGGCTGCTGGACGCCTGTGCAGGTGTTTGTCTGGTTCA
AGGACTGGGTGTTGAGCCAGGTAGTGAGACTGCAGTTGCCATCCTGCGCTTCTGCACAGCCCTGG
GCTATGTCAACAGTTGTCTCAATCCCATTCTCTATGCTTTCCTGGATGAGAACTTCAAGGCCTGC
TTTAGAAAGTTCTGCTGTGCTTCATCCCTGCACCGGGAGATGCAGGTTTCTGATCGTGTGCGGAG
CATTGCCAAGGATGTTGGCCTTGGTTGCAAGACTTCTGAGACAGTACCACGGCCAGCATGACTAG
GCGTGGACCTGCCCATGGTGCCTGTCAGCCCACAGAGCCCATCTACACCCAACACGGAGCTCACA
CAGGTCACTGCTCTCTAGGTTGACCCTGAACCTTGAGCATCTGGAGCC

FIG. 13

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TTGCAGGGCAGTGGCATGGAGCCCCTCTTCCCCGCGCCGTTCTGGGAGGTTATCTACGGC
AGCCACCTTCAGGGCAACCTGTCCCTCCTGAGCCCCAACCACAGTCTGCTGCCCCCGCAT
CTGCTGCTCAATGCCAGCCACGGCGCCTTCCTGCCCCCTCGGGCTCAAGGTCACCATCGTG
GGGCTCTACCTGGCCGTGTGTGTGTCGGAGGGCTCCTGGGGAACTGCCTTGTGATGTACGTC
ATCCTCAGGTAGGCTGGGCCCCAAGGTTCTGTCTGGCACACCAAAATGAAGACAGCCAC
CAATATTTACATCTTTAACCTGGCCCTGGCCGACACTCTGGTCCTGCTGACGCTGCCCTT
CCAGGGCACGGACATCCTCCTGGGCTTCTGGCCGTTTGGGAATGCGCTGTGCAAGACAGT
EATTGCCATTGACTACTACAACATGTTCAACAGCACCTTCACCCTAACTGCCATGAGTGT
GGATCGCTATGTAGCCATCTGCCACCCCATCCGTGCCCTCGACGTCCGCACGTCCAGCAA
AGCCCAGGCTGTCAATGTGGCCATCTGGGCCCTGGCCTCTGTTGTCGGTGTTCGCCGTTGC
CATCATGGGCTCGGCACAGGTGAGGATGAAGAGATCGAGTGCCTGGTGGAGATCCCTAC
CCCTCAGGATTACTGGGGCCCGGTGTTTGCCATCTGCATCTTCCTCTTCTCCTTCATCGT
CCCCGTGCTCGTCATCTCTGTCTGCTACAGCCTCATGATCCGGCGGCTCCGTGGAGTCCG
CCTGCTCTCGGGCTCCCGAGAGAAGGACCGGAACCTGCGGCGCATCACTCGGCTGGTGT
GGTGGTAGTGGCTGTGTTGCTGGGCTGCTGGACGCCTGTCCAGGTCTTCGTGCTGGCCCA
AGGGCTGGGGGTTACGCCGAGCAGCGAGACTGCCGTGGCCATTCTGCGCTTCTGCACGGC
CCTGGGCTACGTCAACAGCTGCCTCAACCCCATCCTCTACGCCTTCCTGGATGAGAACTT
CAAGGCCTGCTTCCGCAAGTTCTGCTGTGCATCTGCCCTGCGCCGGGACGTGCAGGTGTC
TGACCGCGTGCGCAGCATTGCCAAGGACGTGGCCCTGGCCTGCAAGACCTCTGAGACGGT
ACCGCGGCCCGCATGACTAGGCGTGGACCTGCCCATG

FIG. 14

TTGCAGGGCAGTGGCATGGAGCCCCTCTTCCCCGCGCCGTTCTGGGAGGTTATCTACGGCAG
CCACCTTCAGGGCAACCTGTCCCTCCTGAGCCCCAACCACAGTCTGCTGCCCCCGCATCTGC
TGCTCAATGCCAGCCACGGCGCCTTCCTGCCCCCTCGGGCTCAAGGTCACCATCGTGGGGCTC
TACCTGGCCGTGTGTGTGTCGGAGGGCTCCTGGGGAACTGCCTTGTGATGCACACCAAAATGAA
GACAGCCACCAATATTTACATCTTTAACCTGGCCCTGGCCGACACTCTGGTCCTGCTGACGC
TGCCCTTCAGGGCACGGACATCCTCCTGGGCTTCTGGCCGTTTGGGAATGCGCTGTGCAAG
ACAGTCATTGCCATTGACTACTACAACATGTTCAACAGCACCTTCACCCTAACTGCCATGAG
TGTGGATCGCTATGTAGCCATCTGCCACCCCATCCGTGCCCTCGACGTCCGCACGTCCAGCA
AAGCCCAGGCTGTCAATGTGGCCATCTGGGCCCTGGCCTCTGTTGTCGGTGTTCGCCGTTGCC
ATCATGGGCTCGGCACAGGTGAGGATGAAGAGATCGAGTGCCTGGTGGAGATCCCTACCCC
TCAGGATTACTGGGGCCCGGTGTTTGCCATCTGCATCTTCCTCTTCTCCTTCATCGTCCCCG
TGCTCGTCATCTCTGTCTGCTACAGCCTCATGATCCGGCGGCTCCGTGGAGTCCGCCTGCTC
TCGGGCTCCCGAGAGAAGGACCGGAACCTGCGGCGCATCACTCGGCTGGTGTGGTGGTAGT
GGCTGTGTTGCTGGGCTGCTGGACGCCTGTCCAGGTCTTCGTGCTGGCCCAAGGGCTGGGGG
TTCAGCCGAGCAGCGAGACTGCCGTGGCCATTCTGCGCTTCTGCACGGCCCTGGGCTACGTC
AACAGCTGCCTCAACCCCATCCTCTACGCCTTCCTGGATGAGAACTTCAAGGCCTGCTTCCG
CAAGTTCTGCTGTGCATCTGCCCTGCGCCGGGACGTGCAGGTGTCTGACCGCGTGCGCAGCA
TTGCCAAGGACGTGGCCCTGGCCTGCAAGACCTCTGAGACGGTACCGCGGCCCGCATGACTA
GGCGTGGACCTGCCCATG

FIG. 15

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	10	20	30	40	50	60
mKOR 3D	MESLFPAPFWEVLYGSHFQGNLSLLNETV---PHHLLLNASHSAFLPLGLKVTIVGLYLAVCI					
	:: :::::::::: :::: :::::::::: : :::::::::: ::::::::::::::::::::					
hKOR 3D	MEPLFPAPFWEVIYGSHLQGNLSLLSPNHSLLPPHLLLNASHGAFLPLGLKVTIVGLYLAVCV					
	70	80	90	100	110	123
mKOR 3D	GGLLGNCLVMHTKMKTATNIYIFNLALADTLVLLTLPFQGTDILLGFWPFGNALCKTVIAIDY					
	::					
hKOR 3D	<u>GGLLGNCLVMHTKMKTATNIYIFNLALADTLVLLTLPFQGTDILLGFWPFGNALCKTVIAIDY</u>					
	I			II		
	130	140	150	160	170	186
mKOR 3D	YNMFTSTFTLTAMSVDRYVAICHPIRALDVRTSSKAQAVNVVAIWALASVVGVPVAIMGSAQVE					
	::					
hKOR 3D	<u>YNMFTSTFTLTAMSVDRYVAICHPIRALDVRTSSKAQAVNVVAIWALASVVGVPVAIMGSAQVE</u>					
	III			IV		
	190	200	210	220	230	249
mKOR 3D	DEEIECLVEIPAPQDYWGPVFAICIFLFSFIIPVLIISVCYSLMIRRLRGVRLLSGSREKDRN					
	:::::::::::::::: :::::::::::::: :::: :::::::::: ::::::::::::::::::::					
hKOR 3D	<u>DEEIECLVEIPTPQDYWGPVFAICIFLFSFIVPVLVISVCYSLMIRRLRGVRLLSGSREKDRN</u>					
	V					
	260	270	280	290	300	313
mKOR 3D	LRRITRLVLVVAVFVGCWTPVQVFVLVQGLGVQPGSETAVAILRFCTALGYVNSCLNPILYA					
	:::::::::::::::: :::::::::::::: :::::::::: ::::::::::::::::::::					
hKOR 3D	<u>LRRITRLVLVVAVFVGCWTPVQVFVLAQGLGVQPSSETAVAILRFCTALGYVNSCLNPILYA</u>					
	VI			VII		
	320	330	340	350	363	
mKOR 3D	FLDENFKACFRKFCCASALHREMQVSDRVRSAKDVLGCKTSETVPRPA					
	:::::::::::::::: : :::::::::::::: : ::::::::::::::					
hKOR 3D	<u>FLDENFKACFRKFCCASALRRDVQVSDRVRSAKDVALACKTSETVPRPA</u> 95% Identity					

FIG. 16

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	10	20	30	40	50	60
mKOR 3A	MLATVPSCPLDSRSPSWGSTWLCASGGSWGTAASSCMSSSAGRALRGTGDSRHTKMKTATN					
rKOR 3A	MLVTAPSCPLDSRSPSWGSTWLCASGGSWGTAASSCMSSSAGRALRGTGDSRHTKMKTATN					
hKOR 3A	MPATAPSCPSGSRSPSWGSTWPCVSEGSWGTAALCTSSS GR-LGPKVPVWHTKMKTATN					
	I					
	70	80	90	100	110	120
mKOR 3A	IYIFNLALADTLVLLTLPFGQTDILLGFWPFGNALCKTVIAIDYYNMFTSTFTLTAMSVD					
rKOR 3A	IYIFNLALADTLVLLTLPFGQTDILLGFWPFGNALCKTVIAIDYYNMFTSTFTLTAMSVD					
hKOR 3A	IYIFNLALADTLVLLTLPFGQTDILLGFWPFGNALCKTVIAIDYYNMFTSTFTLTAMSVD					
	II			III		
	130	140	150	160	170	180
mKOR 3A	RYVAICHPIRALDVRTSSKAQAVNVAIWALASVVGVPVAIMGSAQVEDEEIECLVEIPAP					
rKOR 3A	RYVAICHPIRALDVRTSSKAQAVNVAIWALASVVGVPVAIMGSAQVEDEEIECLVEIPAP					
hKOR 3A	RYVAICHPIRALDVRTSSKAQAVNVAIWALASVVGVPVAIMGSAQVEDEEIECLVEIPTP					
	IV					
	190	200	210	220	230	240
mKOR 3A	QDYWGPVFAICIFLFSFIIPVLIISVCYSLMIRRLRGVRLLSGSREKDRNLRRITRLVLV					
rKOR 3A	QDYWGPVFAICIFLFSFIIPVLIISVCYSLMIRRLRGVRLLSGSREKDRNLRRITRLVLV					
hKOR 3A	QDYWGPVFAICIFLFSFIVPVLVISVCYSLMIRRLRGVRLLSGSREKDRNLRRITRLVLV					
	V					
	250	260	270	280	290	300
mKOR 3A	VVAVFVGCWTPVQVFVLVQGLGVQPGSETAVAILRFCTALGYVNSCLNPILYAFLDENFK					
rKOR 3A	VVAVFVGCWTPVQVFVLVQGLGVQPGSETAVAILRFCTALGYVNSCLNPILYAFLDENFK					
hKOR 3A	VVAVFVGCWTPVQVFVLAQGLGVQPSSETAVAILRFCTALGYVNSCLNPILYAFLDENFK					
	VI			VII		
	310	320	330	340		
mKOR 3A	ACFRKFCCASALHREMQVSDRVRSlAKDVGLGCKTSETVPRPA					
rKOR 3A	ACFRKFCCASSLHREMQVSDRVRSlAKDVGLGCKTSETVPRPA				99% Identity	
hKOR 3A	ACFRKFCCASALRRDVQVSDRVRSlAKDVALACKTSETVPRPA				91% Identity	

FIG. 17

IG. 18A

551 |
 ...tccag CTGGGAGGGCATTGAGGGGAACTGGAGACAGCAG gtagga... 596 |

1a

IG. 18B

2000 |
 ...tgctag ACAACATTGTGCACCTTGAAGATCTTTGATGAACTTTTACAG GCAGTGCCCTGAAAACCCCTCTGAGAGGA

1c

1b

2150 |
 GTCTTAAGAGAGACTGAGGAGAGAAGACAGCATCTCTCTCTTGATTCTTCCACAAATTCACATTTCAG gttaga...

IG. 18C

1 |
 GTCAGTGGGAGTCCTCCCTGACCAATCAGTTCCCCATGGTTCTTGCCGGCCCCCTCTGACCTCATTTCTCTCCTGCAG

81 |

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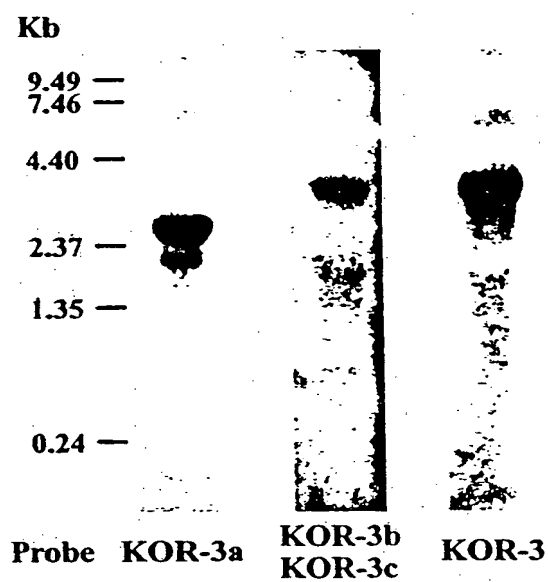


FIG. 19

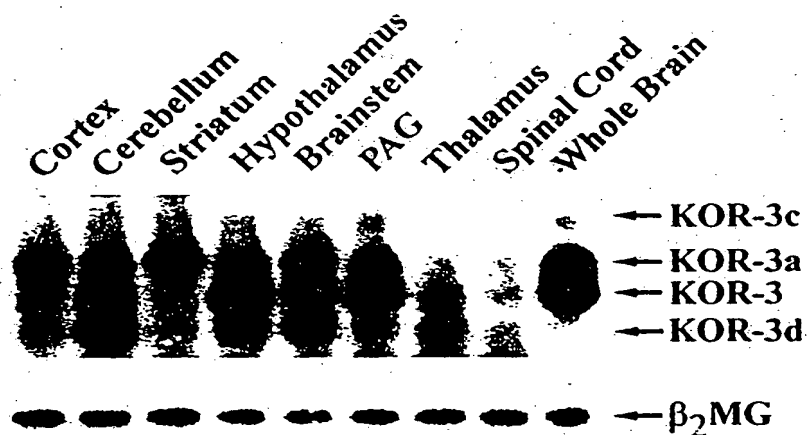


FIG. 20